

University of Groningen

Blockchain for Open Science and Sustainable Development Goals

Rachovitsa, Adamantia

Published in:

The Informer: newsletter of the International Legal Research Interest Group (ILRIG)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2018

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Rachovitsa, A. (2018). Blockchain for Open Science and Sustainable Development Goals. *The Informer: newsletter of the International Legal Research Interest Group (ILRIG)*, 2018(Spring), 2-4.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Message from the Co-Chairs

We are looking forward to seeing our fellow ILRIG members in Washington D.C. this year. We currently have 300 members from a wide range of countries and varied backgrounds. The ILRIG Business Meeting will be held on Wednesday, April 4, from 2:30 p.m. - 4:00 p.m. in the Regency Conference Room. It is especially important to attend this year because we have not met in two years. During the 2017 ASIL Annual Meeting, ILRIG sponsored an educational program and when an interest group sponsors a program, it does not earn a business meeting spot on the calendar. We hope to see you there!

2017 Annual Meeting

As mentioned, at the 2017 Annual Meeting, ILRIG was busy planning and executing a panel on International Courts and Global Justice. We had an audience of approximately 75 attendees at this session. The 90-minute program was held on April 13 and was titled "Spreading Justice: International Criminal Tribunals and National Legal Systems." It was moderated by ILRIG co-chair, Vicki Szymczak. She was joined by panelists Nicholas Boring, Law Library of Congress, Senior Foreign Law Specialist at the Law Library of Congress, Douglas Irvin-Erickson, Director, The School for Conflict Analysis and Resolution, George Mason University, Steven Koh, Trial Attorney, U.S. Department of Justice, and Dr. Jane Stromseth, Professor, Georgetown University Law School

Panelists discussed how international courts could spread justice, improve the legal capacity of nations for justice, and overcome obstacles that stand in their way. Particularized comments were made about Cambodia and Argentina that drew contrasts between theories of international law. Toward this end, there was a fascinating review of the role Raphael Lemkin played in this regard, and his approach to drafting the Convention on the Prevention and Punishment of the Crime of Genocide.

Also during the annual meeting, members of ILRIG, in cooperation with the Law Library of Congress, initiated the first collaborative project with the International Law Students Association introducing the finalists of the Jessup Moot Court competition to the available legal resources. Around 70 students from different countries attended this meeting. We are already making plans to host a similar event this year.

Continued on next page

INSIDE THIS ISSUE

Message from the Co-Chairs.....1

Blockchain for Open Science & Sustainable Development Goals..... 2

The Index to Foreign Legal Periodicals (IFLP): The Basics.....5

INTEREST GROUP OFFICERS:

CO-CHAIRS:

Peter L.. Roudik
Vicki Szymczak

SECRETARY:

Lucie Olejnikova

TREASURER:

Gabriela Femenia

NEWSLETTER EDITOR:

Paul Moorman

Open science - namely more openness with regard to educational resources, access, methodology, reproducibility, and data - is fundamental to realizing the UN's Sustainable Development Goals (SDGs).

Message from the Co-Chairs (continued)

Jus Gentium Award

At the annual meeting, ILRIG awarded its annual Jus Gentium award to the Language of Peace project at <http://www.languageofpeace.org>. This database allows end users to search provisions of Peace Agreements, allowing researchers to compare and collate language on key issues in approximately 1,000 peace agreements. It was created through the Legal Tools for Peace-Making Project, carried out by a research team at the Lauterpacht Centre for International Law at the University of Cambridge, in collaboration with the United Nations Mediation Support Unit. A call for nominations for 2018 Jus Gentium award nominations was sent out and the submissions are currently being considered.

Foreign Law Citation Project

Unfortunately, we must report that the foreign law citation project is currently on hold due to administrative issues. The project was launched by the Law Library of Congress with the assistance of several members of ILRIG and AALL's FCIL-SIS. This group came together out of concern for a better law citation model that was directly informed by citation practices in different countries. We hope that it will be up and running again soon.

Upcoming Elections

Elections are just around the corner! There is a call out for nominations to fill the co-chair position being vacated by Vicki Szymczak after she has served her three-year term.

Peter L. Roudik: prou@loc.gov

Vicki Szymczak: vjs777@hawaii.edu

Blockchain for Open Science & Sustainable Development Goals

Summary of Lightning Talk @ Blockchain4SDGs Workshop organized by the [Research Data Center](#) Campus Fryslân, University of Groningen, The Netherlands, December 2017

**Dr. Mando Rachovitsa, Assistant Professor of Public International Law,
Faculty of Law, Groningen University**

Open Science for Sustainable Development Goals

Open science - namely more openness with regard to educational resources, access, methodology, reproducibility, and data - is fundamental to realizing the UN's Sustainable Development Goals (SDGs). Science is a universal public good and it can be a game-changer when addressing global problems. This is exemplified by the critical role that the production and diffusion of science (scientific outputs and process) plays in the transfer of knowledge and technology. Some examples include: 1) the need for decentralized ways to acquire, manage, and analyze open data in disaster management (resilient and sustainable cities under SDG 11), 2) the need for new research and development models for innovation and knowledge and technology transfer for the production, availability, and access to safe, quality, and affordable medicines and vaccines (SDG 3), or 3) the need for technologies for providing clean water and sanitation, affordable and clean energy, and mitigating

Continued on next page

*Blockchain
has the
potential to
create a
universal
research
ledger as a
living project.*

Blockchain (continued)

(the adverse effects of) climate action (SDGs 6, 7, 13 and 9). The urgent relevance of pursuing open science across scientific disciplines and various industries is further exemplified by the, thus far, “dormant” right to science. The right to science, as formulated under Article 15 of the International Covenant on Economic, Social, and Cultural Rights, provides that everyone has the right to enjoy the benefits of scientific progress and its applications and that states parties shall take steps necessary for the conservation, development, and diffusion of science.

Blockchain for Open Science

Blockchain technology and its core operational principles, including decentralization, transparency, immutability, and openness can encourage, support and enhance innovation and science. Crucially, these principles impact access not only to the scientific results but also to the scientific process. Blockchain can potentially inform the research cycle in a holistic fashion pertaining to the following (non-exhaustive) areas and issues:

- **Open source:** fostering transparency in experimental methodology and the collection of data.
- **Open data:** improving the availability and re-usability of research data via the use of Blockchain. Data sharing practices contribute to avoiding duplication of work and research. Moreover, data sharing allows for experiments to be reproduced and replicated (more easily) and, hence, scientific work becomes more reliable (reproducibility crisis issue).
- **Open access:** agreeing to and ensuring via Blockchain public accessibility and transparency of scientific communication (e.g., published research work; scientific & technological products).

Managing & Analyzing Data

Blockchain has the potential to create a universal research ledger as a living project. Such a research ledger sustains open science work flows (e.g., in a form of an open lab or an open notebook or document) in real time on a global basis. This will encourage and maintain research and other multi-stakeholder partnerships across different countries and continents. This in turn may have a positive impact on: 1) prioritizing the scientific problems that need to be addressed as per the real needs of developing countries, 2) solving complex problems, and 3) creating relevant scientific knowledge much faster.

New Models to Incentivize R & D

Ideas are being explored on how Blockchain can provide the technological means to create novel ways to accord merit to scientists and researchers and their respective scientific work. This inevitably entails a revisit of the role of well-established intermediaries in the scientific/research process (e.g., publishers, public funding bodies, corporations and other private actors). Certain ideas relate to assessing the originality and soundness of a scientific work or work-in-progress at an early stage on a peer-to-peer basis, finding new peer-to-peer reputation and reward mechanisms among researchers, and evaluating impact factors in a decentralized way.

Continued on next page

Blockchain technology gives rise to new ideas and possibilities, communities, and practices.

Blockchain (continued)

Blockchain, as an immutable, record-keeping, decentralized database, can keep track of all nodes' contribution to a publication or the creation of a technology. Blockchain can identify authorship rights and automatically assign and match these rights to the nodes' contribution in the chain. This may take place by designing and concluding smart contracts and without the need for a centralized intermediary. Smart contracts can also implement automatic licensing and non-disclosure agreements. Blockchain's plasticity may also support, if needed, the design of different access control regimes for different nodes. For instance, in order to preserve privacy requirements of health data, smart contracts may set conditions on how and by whom this data will be accessed and analyzed. It is also possible to design a contract to "see" in an automatic fashion data only from a specific point of view, leaving aside privacy concerns of the dataset.

Caveats to this Discussion

When discussing Blockchain, in general, and Blockchain 4 Open Science, in particular, we take certain factors for granted. For example:

- fast and reliable Internet access
- sufficient processing power to verify blockchain transactions
- awareness of how Blockchain can be relevant/useful
- skills to use Blockchain
- potential limitations in practice to anonymity
- security issues (e.g., 51% attacks)
- (cloud) storage
- effective interoperability across different blockchains via implementing open standards

Some of the foregoing issues concern aspects of the digital and knowledge divides which persist across different parts of the world. If these underlying issues are not effectively addressed, it is likely that the Blockchain technology and its use or non-use will simply recycle and further pronounce global inequalities.

Finally, Blockchain technology gives rise to new ideas and possibilities, communities, and practices. At the same time, however, and conversely, it is conditioned to the established mindset of the society and scientist. Given the variations in the implementation of Blockchain's underlying principles, it remains to be seen whether Blockchain will be adapted to only meet needs and requirements of the existing system or whether it will be used to create and sustain transformative ways of doing science.

General References

- 1) Walid Al-Saqaf & Nicolas Seidler, *Blockchain Technology for Social Impact: Opportunities and Challenges Ahead*, 2 Journal of Cyber Policy 338 (2017)
- 2) Sönke Bartling, *Blockchain for Science and Knowledge Creation: An Intro and Overview*, 2nd Conference on Non-Textual Information: Software and Services for Science (S3), May 10-11, 2017 in Hanover, Germany, <https://doi.org/10.5446/31025>
- 3) Audrey Chapman & Jessica Wyndham, *A Human Right to Science*, 340 Science 1291 (2013)
- 4) Vasilis Kostakis, Primavera de Filippi & Wolfgang Drechsler, *Can Blockchain, A Swiftly Evolving Technology, Be Controlled?*, P2P Foundation, May 4, 2017, <https://blog.p2pfoundation.net/can-blockchain-a-swiftly-evolving-technology-be-controlled/2017/05/04>.
- 5) Nancy Pontika, Petr Knoth, Matteo Cancellieri & Samuel Pearce, *Fostering Open Science to Research using a Taxonomy and an eLearning Portal*, iKnow: 15th International Conference on Knowledge Technologies and Data Driven Business, Oct. 21-22. 2015, Graz, Austria, <https://doi.org/10.1145/2809563.2809571>
- 6) United Nations Sustainable Development Goals, <http://www.un.org/sustainabledevelopment/sustainable-development-goals/> (last visited Feb. 23, 2018)

IFLP is the preeminent multilingual index to articles and book reviews appearing in more than 500 legal journals published worldwide.

The Index to Foreign Legal Periodicals (IFLP): The Basics

Marci Hoffman, Associate Director & FCIL Librarian, Berkeley Law Library

What is IFLP?

IFLP is the preeminent multilingual index to articles and book reviews appearing in more than 500 legal journals published worldwide. It provides in-depth coverage of public and private international law, comparative and foreign law, and the law of most jurisdictions. IFLP also analyzes the contents of many individually published collections of legal essays, Festschriften, Mélanges, and congress reports each year. The Index is a crucial research tool for those researching international, foreign, and comparative law.

American Association of Law Libraries

The American Association of Law Libraries (AALL) and its members have had a long affiliation with IFLP. The Association has been instrumental in the development and success of the Index for over 50 years. AALL has always served as the operational organization for the Index and is the holder of its copyright. The Index has benefitted from the expert editorial direction of several AALL members over the years and I assumed the role of general editor in January 2011.

Searching IFLP

IFLP is a powerful research tool for accessing journal literature on foreign, comparative, and international law topics. While the Index is a necessity for law professors and students, it is not just a resource for the academic community; practitioners also benefit from the scope of the Index. Since law firms are operating in a global environment, the Index provides lawyers with access to information on foreign investments, trade, intellectual property, foreign legal regimes, transnational business, and much more.

Continued on next page

Since law firms are operating in a global environment, the Index provides lawyers with access to information on foreign investments, trade, intellectual property, foreign legal regimes, transnational business, and much more.

IFLP (continued)

The database is available on HeinOnline (<http://heinonline.org/HOL/>) and allows a researcher to search for articles published in multiple jurisdictions and languages. You can search using the following options:

- Keyword
- Author
- Article or journal title
- Country of publication
- Subject/country heading
- Language of the article
- Book title
- Reviewer
- ISSN or ISBN

You can also browse the list of subjects and countries. To determine whether a specific journal is covered in the Index, you can browse the list of publications. If you want to know if a specific journal is full-text, look for the double asterisks next to the title on the list of publications.

One of the most exciting features is the ability to link to the full text of the article. We now link to more than 65,000 full text articles and books reviews. If you need an article that is not available on HeinOnline, you can use your regular ILL channels through your library.

Once you retrieve your results by searching or browsing, you can use filters to further refine your results by language, date, subject, or type of document. If the article is on HeinOnline, you can simply click the “Available in HeinOnline” link to access the text quickly. Like all HeinOnline databases, you can print or download your search results. You can even email a list of citations to someone else.

All subjects can now be searched using English, French, German, and Spanish. To locate the proper search term in one of these languages, simply click the “Subjects” button on the search page. The subject headings are also available at <https://www.law.berkeley.edu/library/iflp/>.

For historical research, you can use the print volumes back to 1960. If you don’t have these volumes in your collection, you can search or browse the PDF versions of the Index from 1960-1984. To search the print index, click “Print Edition (1960-)” from the browse options. At the moment, to search this content, you will need to use a different search mechanism; from the search tab, select “Search IFLP Print Edition.”

Behind the Scenes

The content of the Index is derived from the hard work of many people. In addition to my role as the general editor, the team is comprised of a managing editor and a web editor. We also hire several undergraduate and graduate students who possess excellent and varied language abilities. They are responsible for the majority of the data entry. We have a talented group of indexers from around the world. Like many indexes, we use real

Continued on next page

*No other
research
tool covers
the world
of legal
journal
literature
like IFLP.*

IFLP (continued)

people to analyze each article added to IFLP. The general and managing editors select the indexers and we look for people with the necessary language skills (we index in 26 languages, such as Chinese, German, Korean, Hungarian, Polish, Portuguese, and more) and knowledge of law and legal bibliography. The indexers are assigned a collection of journal titles based on their abilities. They evaluate each article and add the appropriate subjects from our controlled list of subject headings.

The Advisory Board

Each year, I invite several librarians to join the Advisory Board. Board members must have the appropriate qualifications before being asked to join. The qualifications include: 1) expertise and proven work experience in international, foreign, and comparative legal research and collection development (or some sort of equivalent experience); 2) work experience in these areas for at least two years; and 3) foreign language abilities beyond English. Members must be able to meet deadlines and dedicate the time needed to complete the assigned work.

The main focus of our work is to review and discuss a list of potential titles for inclusion in the Index. This list of titles is compiled by the general editor, and is based on the editor's knowledge of the new journals, suggestions from the Advisory Board, solicitations from publishers and journal editors, and suggestions from colleagues. The list is reviewed by the Advisory Board and discussed in-depth during our meetings. When we discuss a new journal, we consider the following criteria:

- Topic of the journal and jurisdiction covered.
- Cost.
- Frequency.
- Publisher.
- Quality of the articles.
- Availability on HeinOnline.
- Subjective factors: peer-reviewed, composition of editorial and advisory board.
- Comments from Advisory Board members based on their knowledge about the topic, the editors and publishers, and the interest of their communities in the topic.
- Other bits of information, such as coverage in other indexes, the number of libraries that subscribe to the journal.

Conclusion

In an environment where legal researchers turn to Google and Google Scholar before other tools, we still firmly believe that IFLP is still a crucial resource for librarians, legal scholars, law students, and legal practitioners. No other research tool covers the world of legal journal literature like IFLP. Consequently, we are committed to the continued development of the Index and to making it a more effective and efficient research tool. As we endeavor to improve the platform, link to more full-text articles, and expand the scope of coverage, we encourage our users to provide us feedback. Don't hesitate to contact me at mhoffman@law.berkeley.edu. If you are interested in subscribing to IFLP, contact the folks at HeinOnline, <https://home.heinonline.org/contact/>. You can find more information about IFLP at <https://www.law.berkeley.edu/library/iflp/>.

International Legal Research Group

The International Legal Research Interest Group (ILRIG) is dedicated primarily to its members' professional development in the areas of foreign, comparative, and international law (FCIL). ILRIG provides a forum for discussion among legal information professionals, legal scholars, and attorneys. ILRIG enhances its members' opportunities to share their knowledge about available FCIL re-sources, research methods, research techniques, and best practices. ILRIG organizes presentations, publishes a newsletter, and main-tains a website that reflects the most recent developments in the legal research profession.

ILRIG members are particularly mindful of the interdisciplinary and multicultural aspects of contemporary foreign, comparative, and international law. Global legal policies and norms cannot exist without strong foundations built on exhaustive research. ILRIG is committed to being a forum for discussing ASIL's unique analytical needs.

ILRIG membership is open to all ASIL members. ILRIG should be of particular interest to:

- Law librarians
- Legal scholars
- Attorneys with FCIL practice issues
- Academic librarians
- Scholars working in political science, international relations, economics, and history
- Research professionals from government agencies, policy institutes, inter-governmental organizations, and non-governmental organizations

The Informer

The *Informer* is the newsletter of the International Legal Research Interest Group (ILRIG). Any views expressed in this newsletter are those of the authors in their private capacities and do not purport to represent the official view of the ASIL or ILRIG.

Submissions are welcomed and will be published at the discretion of the editors. Essays or articles should relate to foreign, comparative, and international law (FCIL) resources, research methods, research techniques, and best practices.

To contribute to future issues of the *Informer*, contact:

- Paul Moorman at pmoorman@law.usc.edu

ILRIG OFFICERS

Co-Chairs

Peter L. Roudik

Director of the Global Legal Research Center
Law Library of Congress

Vicki Szymczak

Director of the Law Library & Associate Professor of Law
William S. Richardson School of Law, University of Hawaii

Secretary

Lucie Olejnikova

Foreign & International Law Reference Librarian & Lecturing Fellow
Duke University Law School

Treasurer

Gabriela Femenia

Foreign & International Law Librarian,
University of Pennsylvania Law School

Newsletter Editor

Paul Moorman

Senior Law Librarian-Research Services/Foreign & International Law
USC Gould School of Law